Skeletonization methods for image and volume inpainting

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STELLINGEN

behorende bij het proefschrift

SKELETONIZATION METHODS FOR IMAGE AND VOLUME INPAINTING

van

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1. Overall image restoration quality depends mainly on the accuracy of detection of the damaged regions in the images.

2. To help algorithm designers pinpoint and next solve current limitations of skeletonization methods, a promising direction is to devise new metrics for the quantitative comparison of desired skeleton-quality criteria.

3. For the advection skeletonization method described in Chapter 8 of this thesis, modulating the input-surface density by curvature or application-specific metrics would allow different feature-sensitive skeleton simplifications.

4. Inpainting techniques works best for relatively thin or elongated regions.

5. Skeletonization methods can be effectively used to identify thin and elongated areas such hairs in digital images.

6. An interesting and novel application of 3D skeletonization is for inpainting of 3D shapes, where this method has been shown to produce better results than classical morphological operations for gap removal .

- Chapter 9